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BIOCHEMICAL SYSTEMATICS AND ECOLOGY

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Aims and Scope

Biochemical Systematics and Ecology is devoted to the publication of original articles and occasional invited reviews on the application of biochemistry and chemistry to systematic problems in biology.
All classes of organisms susceptible to chemical and biochemical study are covered, from bacteria to higher plants and animals including fossil forms.
Any type of chemical or biochemical information may be used in demonstrating their phyletic or other interrelationships, including the elucidation of biosynthetic pathways, feedback control, hybridization and other techniques of molecular biology and the distribution of discrete chemical compounds.
Systematics is interpreted in the widest sense to include studies on variation in populations, classification of living organisms, interspecific relationships and phylogenetic affinities of major taxa.

A Selection of Papers

H TAKEDA (Japan), Classification of *Chlorella* strains by means of the sugar components of the cell wall.
F C YEH (Canada), Isozyme variation of *Thuja plicata* (Cupressaceae) in British Columbia.
L M DE MESQUITZ, N F ROQUE, L M B QUINTANA, M DE Q PAULO and **J M BARBOSA FILHO** (Brazil), Lignans from *Rollinia* species (Annonaceae).
M S WITTER (USA), Duplicate expression of biochemical gene makers in the Hawaiian silverswood alliance (Madiinae: Compositae).
T BACKELJAU (Belgium), **S M DAVIES** (UK) and **L DE BRUYN** (Belgium), An albumen gland protein polymorphism in the terrestrial slug *Arion owenii.*

Indexed/Abstracted in: *Current Contents, Chemical Abstracts, Current Awareness in Biological Sciences (CABS), BIOSIS Database*

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PHYTOCHEMISTRY

AIMS AND SCOPE

Phytochemistry is the international journal of plant biochemistry, with an editorial staff of eight and an editorial board of 24 distinguished scientists. It is the official organ of the Phytochemical Society of Europe and is published monthly by Pergamon Journals. It is intended to cover research on all aspects of pure and applied plant biochemistry, especially that which leads to a deeper understanding of the factors underlying the growth, development and metabolism of plants and the chemistry of plant constituents. The journal is currently divided into eight sections, as indicated below, but papers which cut across these sections or which are on any other aspect of plant biochemistry will also be considered.

Review articles are published at regular intervals and they cover almost every aspect of the subject from primary metabolism and regulation of plant growth through plant enzymology to natural product chemistry. They deal with significant new areas of research and are intended to command the interest of the general reader. Authors should consult the editors before preparing such articles, by submitting an outline of their proposed review.

The *Growth and Metabolism* section contains papers on: plant molecular biology, nucleic acids, proteins, recognition molecules; photosynthesis, carbohydrate, lipid and nitrogen metabolism; plant membranes, cell walls, growth hormones and their structure–activity relationships; all aspects of plant enzymology, including the description of new enzymes; and the general biochemistry of plant growth from seed germination, leaf development, flowering and fruiting to seed ripening.

The Ecological Biochemistry section contains papers on: biochemical adaptations in plants to environmental stress; pollination biochemistry; plant toxins and their effects on animals, phytoecdysones, antifeedants; herbivory, plant defence and insect feeding preferences; utilization of plant substances by animals; and all aspects of biochemical plant pathology, including the production of phytotoxins and phytoalexin elicitation.

The *Biosynthesis* section principally contains papers on the biosynthesis of secondary plant constituents in both microbial systems and in higher plants. It may also include papers on the genetic control of biosynthesis, on biosynthetic inter-relationships and on the methodology of biosynthesis.

The *Cell Culture and Biotechnology* section is devoted to biochemical aspects of plant cell and tissue culture, and especially to the accumulation, production, biosynthesis, turnover and enzymology of secondary constituents. Papers on plant biotechnology are also welcomed, e.g. those concerned with biomass production, the utilization of plant products as alternative fuel sources, etc.

The *Chemotaxonomy* section contains papers on the comparative biochemistry of plants. These may range from distributional studies on low molecular weight compounds in a group of fungi, algae or higher plants to the amino acid sequencing of seed lectins. Papers on infraspecific chemical variation are also included here.

The *Plant Chemistry* section is arranged in an ordered sequence and contains papers on: growth substances, macromolecules, primary metabolites, terpenoids, polypeptides, phenylpropanoids, flavonoids, alkaloids and compounds of mixed biosynthetic origin. Authors investigating the chemistry of a given plant species should aim to publish their results in a single manuscript rather than in a series of papers, describing each new compound as it is found. The structural analysis of new plant substances is now so routine that papers reporting a single novel compound of expectable structure (e.g. a new triterpene fatty acid ester) are rarely acceptable, unless other novel information on the plant is included.

The *Short Reports* section contains concise papers representing significant contributions to scientific knowledge which can be adequately included in up to two printed pages (i.e. 6–8 pages of mss.). They need to be as fully documented and as accurate as full papers and are presented in the same style. Reports of known compounds, however rare, from new plant sources will not generally be accepted *unless* they have real chemotaxonomic or other chemical and biological significance.

Book Reviews are published regularly and the editor-in-chief welcomes the submission to the Reading office of new books for review. Symposia and Society announcements will be published, at the discretion of the editors. Preliminary communications and letters to the editor will not, however, be considered.

Authors should consult the latest Instructions list (see *Phytochemistry* Vol. 28, No. 1, pp. 1–5, 1989) before preparing their manuscripts. All contributions must be in English and should be submitted to the editor-in-chief, Prof. J. B. Harborne, Plant Science Laboratories, The University, Reading, RG6 2AS, U.K. Authors in North America may send their manuscripts for onward transmission to Prof. G. Cordell, Program for Collaborative Research in the Pharmaceutical Sciences, College of Pharmacy, University of Illinois at Chicago, Chicago, IL 60612, U.S.A.